

Development Consent

Section 89E of the *Environmental Planning and Assessment Act 1979*

As delegate for the Minister for Planning under delegation executed on 16 February 2015, I grant consent to the development application referred to in Schedule 1, subject to the conditions in Schedule 2.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the Development.



Anthea Sargeant
Executive Director
Key Sites and Industry Assessments

Sydney 23 November 2016

SCHEDULE 1

Application No.:	SSD 7000
Applicant:	Vopak Terminals (Sydney) Pty Ltd
Consent Authority:	Minister for Planning
Land:	37 Friendship Road, Port Botany, Randwick Local Government Area (Lot 201 in DP 1210638)
Development:	Construction and operation of a bulk liquids storage facility with a maximum nominal capacity of 200 mega litres, and associated infrastructure

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DEFINITIONS

Applicant, the	Vopak Terminals (Sydney) Pty Ltd, or anyone else entitled to act on this consent
BCA	<i>Building Code of Australia</i>
Bulk Liquids	Bulk liquids including gasoline and diesel to be imported and exported from the site as described in the EIS
Certifying Authority	Means a person who is authorised by or under section 109D of the <i>Environmental Planning and Assessment Act 1979</i> to issue certificates
Construction	The demolition of buildings or works, the carrying out of works, including bulk earthworks, and erection of buildings and other infrastructure covered by this consent
Council	Randwick City Council
Day	The period from 7 am to 6 pm on Monday to Saturday, and 8 am to 6 pm on Sundays and Public Holidays
Department	Department of Planning and Environment and its successors
Development	The Development to which this consent applies, the scope of which is described in Schedule 1
EIS	Environmental Impact Statement titled, <i>Vopak Site B4 Project</i> , prepared by Aecom Pty Ltd, dated 9 October 2015
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence under the <i>Protection of the Environment Operations Act 1997</i>
Evening	The period from 6 pm to 10 pm
Feasible	Feasible relates to engineering considerations and what is practical to build
FRNSW	Fire and Rescue NSW
Heavy vehicle	Any vehicle with a gross vehicle mass of 5 tonnes or more
ICNG	<i>NSW Interim Construction Noise Guidelines</i> (DECC 2009)
Incident	A set of circumstances that: <ul style="list-style-type: none"> • causes or threatens to cause material harm to the environment; and/or • breaches or exceeds the limits or performance measures/criteria in this consent
INP	<i>NSW Industrial Noise Policy</i> (EPA 2000)
Management and Mitigation Measures	The Management and Mitigation Measures at Appendix 1 of this consent
Minister	Minister for Planning
Mitigation	Activities associated with reducing the impacts of the Development prior to or during those impacts occurring
Night	The period from 10 pm to 7 am on Monday to Saturday, and 10 pm to 8 am on Sundays and Public Holidays
NSW Ports	Botany Operations Pty Ltd as trustee for the Port Botany Unit Trust
OEH	Office of Environment and Heritage
Operation	Import, storage and export of bulk liquids as described in the EIS
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
PHA	Preliminary Hazard Analysis titled <i>Preliminary Hazard Analysis Site B – Stage 4 Development (Site B4)</i> , prepared by Sherpa Consulting, dated 31 August 2015
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
RMS	Roads and Maritime Services
RTS	Response to Submissions titled, “ <i>Vopak Site B4 Project, Response to Submissions</i> ”, prepared by Aecom Pty Ltd, dated 18 December 2015 and supplementary document “ <i>Air Quality Impact Assessment – Vopak Terminal B4</i> ” Rev 2, prepared by Aecom Pty Ltd, dated 27 May 2016
Secretary	Secretary of the Department of Planning and Environment, or nominee
Site	Land referred to in Schedule 1
Site B	Vopak Terminals Sydney – Site B, located at 1-9 and 20 Friendship Road, Port Botany (Lot 10 DP 1126332, Lot 21 DP 1045324) and described in project approval MP 06_0089, approved by the then Minister for Planning on 28 February 2007
VOC	Volatile organic compounds

SCHEDULE 2

PART A - ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

- A1. In addition to meeting the specific performance criteria established under this consent, the Applicant shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction or operation of the Development.

TERMS OF CONSENT

- A2. The Applicant shall carry out the Development in accordance with:
- (a) State Significant Development Application SSD 7000;
 - (b) EIS;
 - (c) RTS;
 - (d) the plans and drawings located at Appendix 1; and
 - (e) the Management and Mitigation Measures located at Appendix 2.
- A3. If there is any inconsistency between the plans and documentation referred to in Condition A2 above, the most recent document shall prevail to the extent of the inconsistency. However, conditions of this consent prevail to the extent of any inconsistency.
- A4. The Applicant shall comply with any reasonable requirement(s) of the Secretary arising from the Department's assessment of:
- (a) any reports, plans or correspondence that are submitted in accordance with this consent; and
 - (b) the implementation of any actions or measures contained within these reports, plans or correspondence.

LIMITS OF CONSENT

- A5. This consent lapses five years after the date from which it operates, unless the Development has physically commenced on the land to which the consent applies before the date on which the consent would otherwise lapse under Section 95 of the Act.
- A6. The Applicant shall ensure that bulk liquids are only imported and exported via pipeline and are not dispatched by road vehicles directly from the site.

Note: This condition does not give approval to an increase in bulk liquids throughput from Site B (via road) associated with project approval MP 06_0089.

STATUTORY REQUIREMENTS

- A7. The Applicant shall ensure that all licences, permits and approvals are obtained and kept up to date as required throughout the life of the Development. No condition of this consent removes the obligation of the Applicant to obtain, renew or comply with such licences, permits or approvals.

STRUCTURAL ADEQUACY

- A8. The Applicant shall ensure that all new buildings and structures on the site are constructed in accordance with the relevant requirements of the *Building Code of Australia* (BCA).

Note:

- Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works.
- Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.

STAGED SUBMISSION OF PLANS AND PROGRAMS

- A9. With the approval of the Secretary, the Applicant may:
- (a) submit any strategy, plan or program required by this consent on a progressive basis; and/or
 - (b) combine any strategy, plan or program required by this consent.

EVIDENCE OF CONSULTATION

- A10. Where consultation with any public authority is required by the conditions of this consent, the Applicant shall:
- (a) consult with the relevant public authority prior to submitting the required documentation to the Secretary or the Certifying Authority for approval, where required;
 - (b) submit evidence of this consultation as part of the relevant documentation required by the conditions of this consent; and
 - (c) include the details of any outstanding issues raised by the relevant public authority and an explanation of disagreement between any public authority and the Applicant or any person acting on this development consent.

UTILITIES AND SERVICES

- A11. Utilities, services and other infrastructure potentially affected by the construction and operation of the Development shall be identified prior to construction to determine requirements for access to, diversion, protection, and/or support. Consultation with the relevant owner and/or provider of services that are likely to be affected by the Development shall be undertaken to make suitable arrangements for access to, diversion, protection, and/or support of the affected infrastructure as required. The cost of any such arrangements shall be borne by the Applicant.
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PART B - ENVIRONMENTAL PERFORMANCE

HAZARD AND RISK

- B1. The Applicant shall:
- (a) implement all control measures proposed in the PHA;
 - (b) implement all actions in response to the recommendations from the Buncefield incident investigation report as listed in Appendix A of the PHA; and
 - (c) implement all recommendations of the PHA.
- B2. Prior to the completion of detailed design of the Development, or within such further period as the Secretary may agree, the Applicant shall prepare a Surge Study for the Development. The Study shall:
- (a) be prepared in consultation with SafeWork NSW prior to commencement of the study;
 - (b) take into account the maximum pumping and tank filling rates when evaluating the pressures that can occur in the pipeline in a surge scenario; and
 - (c) evaluate the controls such as valve closing times and pressure rating of pipes and related equipment.

The findings of the Surge Study shall be included in the Final Hazard Analysis (FHA) under Condition B4(d).

- B3. Prior to finalising the detailed design of the Development, the Applicant shall consult with SafeWork NSW regarding any requirements under the *Work Health and Safety Act 2011* and *Work Health and Safety Regulation 2011*.

Pre-construction

- B4. At least one month prior to the commencement of construction of the Development (except for construction of those preliminary works that are outside the scope of the hazard studies), or within such further period as the Secretary may agree, the Applicant shall prepare and submit for the approval of the Secretary, the studies set out under subsections (a) to (d) (the pre-construction studies) of this condition. Construction, other than of preliminary works, shall not commence until approval has been given by the Secretary and, with respect to the Fire Safety Study, approval has also been given by Fire and Rescue NSW (FRNSW).

(a) CONSTRUCTION SAFETY STUDY

A Construction Safety Study, consistent with the Department's *Hazardous Industry Planning Advisory Paper No. 7, 'Construction Safety'*. For developments in which the construction period exceeds six (6) months, the commissioning portion of the Construction Safety Study may be submitted two months prior to the commencement of commissioning of each discrete component/system of the Development as per the Development's commissioning plan (e.g. individual tank systems). The Construction Safety Study shall identify and assess construction and demolition related hazards and the control measures that will be put in place to prevent and/or mitigate such hazards.

(b) FIRE SAFETY STUDY

An update of the Fire Safety Study (FSS) for Site B, titled *Vopak B3 Expansion Project, Port Botany – Fire Safety Study*, Rev 0, prepared by Sherpa Consulting and dated August 2009 to include the Development. Prior to the commencement of each stage of the Development, this study shall be updated and submitted to the Secretary and FRNSW for their respective approval. The study shall cover the relevant aspects of the Department's *Hazardous Industry Planning Advisory Paper No. 2, 'Fire Safety Study Guidelines'* and the New South Wales Government's *'Best Practice Guidelines for Contaminated Water Retention and Treatment Systems'*. The FSS shall be developed in consultation with FRNSW. The FSS shall also address the following:

- (i) the scope of the FSS should at least include the following:
 - the proposed increased discharge rates from bulk liquids berth (BLB) 1 and BLB 2; and

- interfacing of services with the existing Site B arising as a consequence of the Development;
 - (ii) the recommended fire protection control measures arising from the FSS analysis be developed from first principle evaluation;
 - (iii) if the Development is staged, the FSS for the first stage shall consider the requirements of the Fire detection/protection systems for the entire Development; and
 - (iv) the analysis of required fire protection systems includes substantiation of effective and timely system initiation/activation with regard to the number of on-site personnel available at all hours of business operations.
- (c) **HAZARD AND OPERABILITY STUDY**
 A Hazard and Operability Study (HAZOP) for the Development and the pipeline from the berths to Site B, chaired by a qualified person who is independent of the Development and approved by the Secretary prior to the commencement of the study.
 In addition, the following shall be covered in the HAZOP study:
- (i) surge issues due to an increase in pumping rates; and
 - (ii) the ullage allowance above the high alarm/ESD level, taking into account the slow closing time of the ESD valves; and
 - (iii) the study shall be consistent with the Department's *Hazardous Industry Planning Advisory Paper No. 8, 'HAZOP Guidelines'*. The study report must be accompanied by a program for the implementation of all recommendations made in the report. If the Applicant intends to defer the implementation of a recommendation, reasons must be documented
- (d) **FINAL HAZARD ANALYSIS**
 A Final Hazard Analysis (FHA) of the site, consistent with the Department's *Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis'*. The FHA shall report on the implementation of the recommendations of the PHA. The FHA also shall:
- (i) demonstrate that the tank overfill protection system (for all tanks) reduces the risk so far as reasonably practicable. The following shall be included as part of this demonstration requirement:
 - a sample bow-tie analysis of the tank overfill protection system; and
 - the safety integrity level (SIL) allocation and verification report for the Development, in particular the tank overfill protection system and rim seal fire detection;
 - (ii) re-evaluate and confirm all relevant data and assumptions from the PHA, in particular, the outcomes of the surge analysis that may result in changes in the risk assessment;
 - (iii) re-evaluate and confirm all control measures proposed for the prevention and mitigation of incidents; and
 - (iv) report on implementation of the recommendations of the PHA.

Pre-Commissioning

- B5. The Applicant shall develop and implement the plans and systems set out under subsections (a) to (b) of this Condition. No later than two months prior to the commencement of commissioning of the Development, or within such further period as the Secretary may agree, the Applicant shall submit, for the approval of the Secretary, documentation describing those plans and systems. Commissioning shall not commence until approval has been given by the Secretary.

- (a) **EMERGENCY PLAN**
 A comprehensive Emergency Plan and detailed emergency procedures for the Development. This plan shall include consideration of the safety of all people outside of the development who may be at risk from the development. The plan shall be consistent with the Department's *Hazardous Industry Planning Advisory Paper No. 1, 'Emergency Planning'*. The plan shall include interim emergency management arrangements (if any) which may be introduced between the commencement of commissioning and reaching end-state terminal operations.

(b) **SAFETY MANAGEMENT SYSTEM**

An update of the Safety Management System (SMS) that covers the development and Site B operations. The document shall clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to the procedures. Records supporting the SMS shall be kept on-site and shall be available for inspection by the Secretary upon request.

The Safety Management System shall be consistent with the Department's *Hazardous Industry Planning Advisory Paper No. 9, 'Safety Management'*.

An inspection, testing and preventive maintenance program shall be developed, implemented and maintained to ensure the reliability and availability of the key safety critical equipment is, at a minimum, consistent with the data estimated in the PHA.

Pre-startup

B6. PRE-STARTUP COMPLIANCE REPORT

One month prior to the commencement of operation of each asset or system covered by this consent, the Applicant shall submit to the Secretary, a report detailing compliance with Conditions B1 to B5, including:

- (a) dates of study/plan/system submission, approval, commencement of construction and commissioning;
- (b) actions taken or proposed, to implement the recommendations and safety-related control measures in the studies/plans/systems;
- (c) a pre-startup safety review/checklist; and
- (d) responses to each requirement imposed by the Secretary under Condition B9 of this Schedule.

Post-startup

B7. POST-STARTUP COMPLIANCE REPORT

Three months after the commencement of operation of the first asset or system covered by this consent, the Applicant shall submit to the Secretary, a report verifying that:

- (a) the Emergency Plan required under Condition B5(a) is effectively in place and that at least one emergency exercise has been conducted; and
- (b) the Safety Management System required under Condition B5(b) has been fully implemented and that records required by the system are being kept.

Ongoing

B8. HAZARD AUDIT

Twelve months after the commencement of operation of the Development and every three years thereafter, or at such intervals as the Secretary may agree, the Applicant shall carry out a comprehensive Hazard Audit of the Development and within one month of each audit submit a report to the Secretary.

The audits shall be carried out at the Applicant's expense by a qualified person or team, independent of the Development, approved by the Secretary prior to commencement of each audit. Hazard Audits shall be consistent with the Department's *Hazardous Industry Planning Advisory Paper No. 5, 'Hazard Audit Guidelines'* (HIPAP No. 5). The audit reports shall, in addition to the requirements provided in HIPAP No 5:

- (a) verify implementation of all actions proposed by the Applicant in response to the recommendations from the Buncefield incident investigation report as contained in the Appendix A of PHA;
- (b) verify that an inspection, testing and preventative maintenance program has been developed, implemented and maintained to ensure the reliability and availability of key safety critical equipment;
- (c) confirm that the throughput and storage quantities of potentially hazardous materials are consistent with the PHA; and

- (d) verify implementation of any measures arising from the reports submitted in respect of Conditions B1 to B7 of this Schedule.

The audit report shall be accompanied by a program for the implementation of all recommendations made in the audit report. If the Applicant intends to defer the implementation of a recommendation, reasons must be documented. This audit report shall also be submitted to SafeWork NSW.

Further Requirements

- B9. The Applicant shall comply with all reasonable requirements of the Secretary in respect of the implementation of any measures arising from the reports submitted in respect of Conditions B1 to B8 of this Schedule inclusive, within such time as the Secretary may agree.

AIR QUALITY AND ODOUR

Air Quality Discharges

- B10. The Applicant shall install and operate equipment to ensure the Development complies with all load limits, air quality criteria and air quality monitoring requirements as specified in the EPL for the site.

Odour

- B11. The Applicant shall ensure the Development does not cause or permit the emission of any offensive odour (as defined in the POEO Act).

Dust Management

- B12. The Applicant shall carry out all reasonable and feasible measures to minimise dust generated by the Development.
- B13. During construction and operation of the Development, the Applicant shall ensure that:
 - (a) all vehicles on-site do not exceed a speed limit of 20 kilometres per hour;
 - (b) all loaded vehicles entering or leaving the site have their loads covered;
 - (c) all loaded vehicles leaving the site are cleaned of dirt, sand and other materials before they leave the site, to avoid tracking these materials on public roads; and
 - (d) all heavy vehicles on-site do not use engine brakes.

Operational Air Quality Management Plan

- B14. Prior to the commencement of operation, the Applicant shall prepare an **Air Quality Management Plan (AQMP)** for the Development, to the satisfaction of the Secretary. The AQMP shall form part of the OEMP in Condition C4 and be prepared in accordance with Condition C7 and any other requirements of the EPL for the site. The AQMP shall:
 - (a) be prepared in consultation with the EPA;
 - (b) detail and rank all emissions from all sources of the Development, including particulate and odour emissions;
 - (c) describe a program that is capable of evaluating the performance of the operation and determining compliance with key performance indicators;
 - (d) nominate the following for each of the proposed controls:
 - (i) key performance indicator;
 - (ii) monitoring method;
 - (iii) location, frequency and duration of monitoring;
 - (iv) record keeping;
 - (e) identify the control measures that will be implemented for each emission source; and
 - (f) includes a complaints register, response procedures and compliance monitoring.

Post-commissioning Air Emissions Verification

- B15. Within six months of the commencement of operation, the Applicant shall prepare a post-commissioning air emissions report to verify all major emission sources identified in the RTS associated with the development. The report shall:
- (a) be prepared by a suitably qualified and independent expert;
 - (b) be submitted to the EPA;
 - (c) include post commissioning sampling and speciation of VOC emissions from the storage tanks for the fuel types assessed in the RTS. Sampling is to be undertaken in accordance with the requirements specified in *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW*;
 - (d) include records of the operating capacity and process rate of the activity at the time of sampling; and
 - (e) include a comparison and analysis of the results of the post commissioning sampling with the modelled emissions in the RTS and demonstrate compliance with the ground level criteria in the *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW*;
 - (f) detail additional measures to be implemented to further reduce emissions.

TRAFFIC AND TRANSPORT

Site Access, Internal Roads and Parking

- B16. The Applicant shall ensure:
- (a) internal roads, driveways and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) associated with the Development are constructed and maintained in accordance with the latest versions of AS 2890.1 and AS 2890.2;
 - (b) the sweep path of the longest vehicle entering and exiting the subject site, as well as manoeuvrability through the site, is in accordance with AUSTROADS;
 - (c) the Development does not result in any vehicles queuing on the public road network;
 - (d) all loading and unloading of materials is carried out on site; and
 - (e) the proposed turning areas in the car park are kept clear of any obstacles, including parked cars, at all times.

Culvert Works on Friendship Road

- B17. The Applicant shall ensure that any works on Friendship Road is undertaken in accordance with NSW Ports requirements.

Construction Traffic Management Plan

- B18. Prior to the commencement of construction, the Applicant shall prepare a **Construction Traffic Management Plan (CTMP)** for the Development in consultation with NSW Ports, Council and the RMS, and to the satisfaction of the Secretary. The plan shall form part of the CEMP Condition C1 and be prepared in accordance with Condition C7. The TMP shall:
- (a) detail the measures that would be implemented to ensure road safety, network efficiency and access during construction;
 - (b) include the traffic controls to be implemented at the Friendship Road/Simblist Road intersection during the culvert construction works on Friendship Road;
 - (c) contain a drivers code of conduct to:
 - (i) minimise the impacts of construction on the local and regional road network; and
 - (ii) minimise conflicts with other road users;
 - (d) detail construction vehicle routes, number of trucks, access and parking arrangements; and
 - (e) if necessary, detail procedures for notifying any nearby residents of any potential disruptions to routes.

NOISE AND VIBRATION

Hours of Work

B19. The Applicant shall comply with the construction and operation hours in Table 1, unless otherwise agreed by the Secretary.

Table 1: Hours of Work

Activity	Day	Hours
Construction	Monday - Friday	7 am to 6 pm
	Saturday	8 am to 1 pm
	Sunday & Public Holidays	Nil
Operation	Monday to Sunday	24 hours

B20. Construction outside of the hours identified in Condition B19, may be undertaken in the following circumstances:

- (a) works that are inaudible at the nearest sensitive receiver;
- (b) works agreed to in writing by the EPA or Secretary;
- (c) for the delivery of materials required outside these hours by the NSW Police or other authorities for safety reasons; or
- (d) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm.

Construction Vibration

B21. The Applicant shall aim to achieve the following construction vibration goals:

- (a) for structural damage, the vibration limits set out in the German *Standard DIN 4150-3: Structural Vibration – effects of vibration on structures*; and
- (b) for human exposure, the acceptable vibration values set out in the *Environmental Noise Management Assessing Vibration: A technical Guideline* (Department of Environment and Conservation, 2006)

Noise Mitigation

B22. The Applicant shall implement best practice, including all reasonable and feasible noise management and mitigation measures to prevent and minimise operational, low frequency and traffic noise generated by the Development.

SOIL, WATER QUALITY AND HYDROLOGY

Water Licences

B23. The Applicant is required to obtain the necessary water licences for the Development under the *Water Act 1912* and/or the *Water Management Act 2000*. If the development intercepts the groundwater table, a hydrogeological assessment shall be prepared to support any groundwater dewatering licence application.

Note: Licences are required for groundwater bores, excavations that may intercept groundwater, dewatering activities and extraction or interception of surface water.

Surface Water Discharge Limits

B24. The Applicant shall ensure that all licensed surface water discharges from the site comply with the discharge limits (volume and quality) set for the Development in any EPL or relevant provisions of the POEO Act.

Construction Soil and Water Management

- B25. Soil and water management measures consistent with *Managing Urban Stormwater - Soils and Construction Vol. 1* (Landcom, 2004) (the Blue Book) shall be employed during the construction of the Development to minimise soil erosion and the discharge of sediment and other pollutants to land and/or waters.

Bunding and Storage of Liquids

- B26. The Applicant shall store all chemicals, fuels and oils used on-site in appropriately bunded areas in accordance with the requirements of all relevant Australian Standards, and/or EPA's *Storing and Handling Liquids: Environmental Protection – Participants Handbook*.

Water Management Plan

- B27. Prior to commencement of operation, the Applicant shall prepare a **Water Management Plan (WMP)** to the satisfaction of the Secretary. The WMP shall form part of the OEMP in Condition C4 and be prepared in accordance with Condition C7. The WMP shall:
- (a) be prepared in consultation with the EPA;
 - (b) include mitigation measures for managing surface water, but not limited to the Management and Mitigation Measures in Appendix B; and
 - (c) contain a Surface Water Management Plan that:
 - describes the water management systems on site, including plans of the stormwater system and oily/water wastewater system; and
 - demonstrates compliance with any requirements of the EPL with respect to stormwater and wastewater management.

WASTE MANAGEMENT

Classification

- B28. The Applicant shall ensure that any waste generated on the site is classified in accordance with the EPA's *Waste Classification Guidelines* (DECCW, 2009) or any superseding document and disposed of to a facility that may lawfully accept the waste.

Waste Management

- B29. For the life of the Development, the Applicant shall:
- (a) implement all reasonable and feasible measures to minimise the waste generated on site by the Development; and
 - (b) ensure that any waste generated by the Development is appropriately stored, handled and disposed of.

VISUAL

External Lighting

- B30. All external lighting associated with the Development shall be mounted, screened, and directed in such a manner so as not to create a nuisance to the surrounding environment, properties and roadways. The lighting shall be the minimum level of illumination necessary and shall comply with Australian Standard AS4282 1997 – *Control of the Obtrusive Effects of Outdoor Lighting*.
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PART C - ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Construction Environmental Management Plan

- C1. The Applicant shall prepare a **Construction Environmental Management Plan (CEMP)** to the satisfaction of the Secretary. The Plan shall:
- (a) be approved by the Secretary prior to the commencement of construction;
 - (b) be prepared by a suitably qualified and experienced person;
 - (c) identify the statutory approvals that apply to the Development;
 - (d) outline all environmental management practices and procedures to be followed during construction works associated with the Development;
 - (e) describe all activities to be undertaken on the site during construction of the Development, including a clear indication of construction stages;
 - (f) detail how the environmental performance of the construction works will be monitored, and what actions will be taken to address identified adverse environmental impacts;
 - (g) describe the roles and responsibilities for all relevant employees involved in construction works associated with the Development; and
 - (h) include the management plans under Condition C2 of this consent.
- C2. As part of the CEMP for the Development, required under condition C1 of this consent, the Applicant shall include the following:
- (a) Dust Management;
 - (b) Construction Traffic Management;
 - (c) Noise and Vibration Management;
 - (d) Construction Soil and Water Management;
 - (e) Waste Management; and
 - (f) community consultation and complaints handling procedure.
- C3. The Applicant shall carry out the construction of the Development in accordance with the CEMP approved by the Secretary (and as revised and approved by the Secretary from time to time).

Operational Environmental Management Plan

- C4. The Applicant shall prepare an **Operational Environmental Management Plan (OEMP)** for the Development to the satisfaction of the Secretary. The Plan shall:
- (a) be approved by the Secretary prior to the commencement of operation;
 - (b) be prepared by a suitably qualified and experienced person;
 - (c) outline the environmental impacts, environmental safeguards and management controls, monitoring measures and reporting measures of the Development;
 - (d) include the procedures that would be implemented to:
 - (i) keep the local community and relevant agencies informed about the operation and environmental performance of the Development;
 - (ii) receive, handle, respond to, and record complaints;
 - (iii) resolve any disputes that may arise;
 - (iv) respond to any non-compliance; and
 - (v) respond to emergencies.
- C5. As part of the OEMP for the Development, required under Condition C4 of this consent, the Applicant shall include the following:
- (a) Air Quality;
 - (b) Soil and Water; and
 - (c) Waste Management.
- C6. The Applicant shall operate the Development in accordance with the OEMP approved by the Secretary (and as revised and approved by the Secretary from time to time).

Management Requirements

- C7. The Applicant shall ensure that the environmental management plans required under Condition C1 and C4 of this consent are prepared by a suitably qualified person or persons in accordance with best practice and include:
- (a) detailed baseline data;
 - (b) a description of:
 - (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions);
 - (ii) any relevant limits or performance measures/criteria; and
 - (iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the Development or any management measures;
 - (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
 - (d) a program to monitor and report on the:
 - (i) impacts and environmental performance of the Development;
 - (ii) effectiveness of any management measures (see (c) above);
 - (e) a contingency plan to manage any unpredicted impacts and their consequences;
 - (f) a program to investigate and implement ways to improve the environmental performance of the Development over time;
 - (g) a protocol for managing and reporting any:
 - (i) incidents;
 - (ii) complaints;
 - (iii) non-compliances with statutory requirements; and
 - (iv) exceedances of the impact assessment criteria and/or performance criteria; and
 - (h) a protocol for periodic review of the plan.

Revision of Strategies, Plans and Programs

- C8. Within 3 months of:
- (a) an incident report submitted under Condition C9;
 - (b) an audit submitted under Condition C11; or
 - (c) a modification to the development consent.

the Applicant shall review, and if necessary revise, the strategies, plans, and programs required under this consent.

Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the Development.

REPORTING

Incident Reporting

- C9. Upon detecting an exceedance of the limits/performance criteria in this consent or the occurrence of an incident that causes (or may cause) material harm to the environment, the Applicant shall immediately (or as soon as practical thereafter) notify the Secretary and other relevant agencies of the exceedance/incident.

Within seven days of the date of the exceedance or incident, the Applicant shall provide the Secretary and any relevant agencies with a detailed report on the exceedance or incident, and such further reports as may be requested.

Regular Reporting

- C10. The Applicant shall provide regular reporting on the environmental performance of the Development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.

AUDITING

Independent Environmental Audit

- C11. Within 2 years of the date of this consent, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the Development. This audit must:
- (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the Development and assess whether it is complying with the requirements in this consent, and any other relevant approvals, relevant EPL(s) (including any assessment, plan or program required under these approvals);
 - (d) review the adequacy of any approved strategy, plan or program required under the abovementioned consents; and
 - (e) recommend measures or actions to improve the environmental performance of the Development, and/or any strategy, plan or program required under this consent.

Note: This audit team must be led by a suitably qualified auditor, and include relevant experts in any other fields specified by the Secretary.

- C12. Within 3 months of commissioning this audit, or as otherwise agreed by the Secretary, the Applicant shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.

ACCESS TO INFORMATION

- C13. The Applicant shall make the following information publicly available on its website and keep the information up to date:
- (a) the EIS and RTS;
 - (b) current statutory approvals for the Development;
 - (c) approved strategies, plans or programs;
 - (d) a complaints register, updated on an annual basis; and
 - (e) any other matter required by the Secretary.

Note: This condition does not require any confidential information to be made available to the public

TANK No	DIAMETER (m)	HEIGHT (m)	DRILL VOLUME	FILL VOLUME	OPERATING VOL
A 11541	43.5	24.8	30500m³	30500m³	30500m³
A 11542	43.5	24.8	30500m³	30500m³	30500m³
A 11543	43.5	24.8	30500m³	30500m³	30500m³
B 11544	43.5	24.8	30500m³	30500m³	30500m³
B 11545	43.5	24.8	30500m³	30500m³	30500m³
B 11546	43.5	24.8	30500m³	30500m³	30500m³
B 11547	43.5	24.8	30500m³	30500m³	30500m³
B 11548	43.5	24.8	30500m³	30500m³	30500m³
B 11549	43.5	24.8	30500m³	30500m³	30500m³
B 11550	43.5	24.8	30500m³	30500m³	30500m³
B 11551	43.5	24.8	30500m³	30500m³	30500m³
B 11552	43.5	24.8	30500m³	30500m³	30500m³
B 11553	43.5	24.8	30500m³	30500m³	30500m³
B 11554	43.5	24.8	30500m³	30500m³	30500m³
B 11555	43.5	24.8	30500m³	30500m³	30500m³
B 11556	43.5	24.8	30500m³	30500m³	30500m³
B 11557	43.5	24.8	30500m³	30500m³	30500m³
B 11558	43.5	24.8	30500m³	30500m³	30500m³
B 11559	43.5	24.8	30500m³	30500m³	30500m³
B 11560	43.5	24.8	30500m³	30500m³	30500m³
B 11561	43.5	24.8	30500m³	30500m³	30500m³
B 11562	43.5	24.8	30500m³	30500m³	30500m³
B 11563	43.5	24.8	30500m³	30500m³	30500m³
B 11564	43.5	24.8	30500m³	30500m³	30500m³
B 11565	43.5	24.8	30500m³	30500m³	30500m³
B 11566	43.5	24.8	30500m³	30500m³	30500m³
B 11567	43.5	24.8	30500m³	30500m³	30500m³
B 11568	43.5	24.8	30500m³	30500m³	30500m³
B 11569	43.5	24.8	30500m³	30500m³	30500m³
B 11570	43.5	24.8	30500m³	30500m³	30500m³
B 11571	43.5	24.8	30500m³	30500m³	30500m³
B 11572	43.5	24.8	30500m³	30500m³	30500m³
B 11573	43.5	24.8	30500m³	30500m³	30500m³
B 11574	43.5	24.8	30500m³	30500m³	30500m³
B 11575	43.5	24.8	30500m³	30500m³	30500m³
B 11576	43.5	24.8	30500m³	30500m³	30500m³
B 11577	43.5	24.8	30500m³	30500m³	30500m³
B 11578	43.5	24.8	30500m³	30500m³	30500m³
B 11579	43.5	24.8	30500m³	30500m³	30500m³
B 11580	43.5	24.8	30500m³	30500m³	30500m³
B 11581	43.5	24.8	30500m³	30500m³	30500m³
B 11582	43.5	24.8	30500m³	30500m³	30500m³
B 11583	43.5	24.8	30500m³	30500m³	30500m³
B 11584	43.5	24.8	30500m³	30500m³	30500m³
B 11585	43.5	24.8	30500m³	30500m³	30500m³
B 11586	43.5	24.8	30500m³	30500m³	30500m³
B 11587	43.5	24.8	30500m³	30500m³	30500m³
B 11588	43.5	24.8	30500m³	30500m³	30500m³
B 11589	43.5	24.8	30500m³	30500m³	30500m³
B 11590	43.5	24.8	30500m³	30500m³	30500m³

NSW Government
Department of Planning and Environment



Figure 2: Proposed Height and Size of Largest Vopak Tank

APPENDIX 2: MITIGATION AND MANAGEMENT MEASURES

5.0 Management Measures

The Project EIS included a summary of the management measures that would be incorporated into the construction and operation of the Project. Following the receipt and consideration of submissions these management measures were reviewed and no additions or amendments were considered necessary. The final summary of Project management measures is provided in **Table 3**.

Table 3 Summary of Management Measures

Environmental Aspect	Commitments and Mitigations
Management Plan	<ul style="list-style-type: none"> - Construction Environmental Management Plan will be prepared for the construction of the Project. The CEMP will be prepared in consultation with DP&E; and - Vopak will undertake a review and update their existing OEMP in consultation with DP&E as required by the Project.
Hazards and Risks	<ul style="list-style-type: none"> - The effectiveness of the safeguards assumed to be in place and accounted for in the QRA should be verified as part of the design process; - Vopak undertake a review of emerging engineering measures (for example modification to tank top design) that may be able to be implemented to eliminate formation of large flammable clouds due to tank overflow scenarios; - As part of the review of the emergency response plan (ERP) that will be required for the Project, Vopak with input from Australian Container Freight Services undertake a review of access/egress from the Australian Container Freight Services site to determine if any additional emergency access or exit provisions are required in the event of an incident at the B4 site; and - As part of the Final Hazard Analysis (which will be prepared prior to operations commencing), checklists identifying the key assumptions and constraints in the QRA at the final design stage of the Project will be developed. These will be an update to the checklists prepared for Site B as part of the current Section 75W QRA, and will simplify the hazard analysis update requirements for future changes should they arise.
Traffic and Transport	<ul style="list-style-type: none"> - A Construction Traffic Management Plan will be prepared for the construction of the Project to manage construction traffic impacts. This will be incorporated into the Project CEMP; - A Traffic Management Plan was prepared for the existing Site B Facility, in accordance with the Site B project approval, and was prepared in consultation with the now DP&E. this will be reviewed and updated to include the Project; - Measures identified to manage potential traffic impacts include: <ul style="list-style-type: none"> • An induction process for drivers; • Entry and exit conditions and requirements; • Site traffic movements; and • Approved operational access and egress routes.
Air Quality	<ul style="list-style-type: none"> - A Construction Air Quality Management Plan will be prepared for the construction of the Project to manage construction air quality impacts (notably dust). This will be incorporated into the Project CEMP. - The existing OEMP currently in place for the operating Site B Facility will be reviewed and updated to ensure all reasonable and feasible air quality management measures have been incorporated into the operation of the Project. - All vehicles and plant/equipment should be fitted with appropriate emission control equipment and be serviced and maintained in accordance with the manufacturers' specifications. Smoke from vehicles/plant should not be visible for more than ten seconds; - Trucks entering and leaving the premises that are carrying loads of dust-generating materials must have their loads covered at all times, except during loading and unloading; - Hard surfaces or paving should be used where possible, as unpaved routes can account for a significant proportion of fugitive dust emissions, particularly during dry/windy conditions. Routes should be inspected regularly and repaired when

Environmental Aspect	Commitments and Mitigations
	<p>necessary, and roads should be swept and watered as required to limit dirt/dust build up and potential dust generation during windy conditions;</p> <ul style="list-style-type: none"> - Any areas on site that are not covered with hard surfaces should be vegetated wherever possible to minimise wind erosion and associated dust generation; - All vehicles should be switched off when not in use for extended periods; - Water carts and/or road sweeping will be used to minimise dust generation. The frequency of these management measures will be increased during dry windy conditions; - Stockpiles where hazardous material has been encountered will be wetted and covered; - Active excavation area works will be wetted down with hoses; and - Housekeeping will be maintained to keep exposed areas to a minimum.
Noise and Vibration	<ul style="list-style-type: none"> - A Construction Noise Management Plan will be prepared for the construction of the Project to manage construction noise impacts. This will be incorporated into the Project CEMP; and - The existing OEMP currently in place for the operating Site B Facility will be reviewed and updated to ensure all reasonable and feasible noise and vibration management measures have been incorporated into the operation of the Project.
Soil and Water	<ul style="list-style-type: none"> - A Sediment and Erosion Control Plan and a Soil and Water Management Plan will be prepared for the construction phase of the Project. Both these plans will form part of the CEMP for the Project; - The existing Water – stormwater/surface water management and control measures prepared for the Site B Facility as detailed in the existing OEMP, will be updated to incorporate the Project; and - The existing soil and groundwater management and control measures prepared for the Site B Facility as detailed in the existing OEMP, will be updated to incorporate the Project.
Waste	<ul style="list-style-type: none"> - The waste strategies developed for the existing Site B Facility will be updated to incorporate the Project. This can be summarised as the application of the waste hierarchy where the following will be employed, in order of preference: <ul style="list-style-type: none"> • <i>Avoidance</i> – The generation of wastes from the Facility will be avoided where possible; • <i>Reduce</i> – Reduce resource consumption, procure materials with less packaging and implement practices to reduce waste; • <i>Reuse</i> – Where feasible, materials will be reused onsite. However, due to the limited waste streams generated onsite, reuse options may be limited; • <i>Recycling</i> – Paper, cardboard, glass and plastics will be available for recycling. A bin will be placed adjacent to the office which will be collected by a waste management contractor on a regular basis; and • <i>Disposal</i> – Disposal of wastes will be minimised where possible. Putrescibles wastes from the office will be sent to landfill, with other wastes generally diverted for recycling; and - Waste strategies will be met through the extension of the existing Site B Waste management and control measures as detailed in the existing OEMP for operations at Site B and as part of the CEMP for waste generated during construction.
Visual Amenity	<ul style="list-style-type: none"> - A Landscape Plan will be prepared to manage the visual amenity of the Project.
Greenhouse Gas	<ul style="list-style-type: none"> - An Energy Efficiency Plan will be prepared as part of the existing Site B OEMP to include key elements of the Project and to describe how the plan will be applied across the entire terminal and a timeframe for this to occur.